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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,053	11/27/2001	Yoshitomo Nagahashi	216553US2CONT	1298

22850 7590 10/09/2003

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EXAMINER
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ESPLIN, DAVID B

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 10/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Applicati n No.	Applicant(s)	
	09/994,053	NAGAHASHI ET AL.	
	Examiner	Art Unit	
	D. Ben Esplin	2851	

**-- The MAILING DATE of this communication app ars on the cover she t with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 and 36-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-23 and 36-47 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-10, 14, 15, 24-27, 29, 32 and 33 is/are rejected.
- 7) ☒ Claim(s) 6, 11-13, 28, 30 and 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the embodiment in which the machine chamber and the exposure chamber are formed within a same chamber (claim 6) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawings were received on 9/15/03. These drawings are accepted.

### ***Specification***

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Objections***

Claims 6 is objected to because of the following informalities:

Referring to claim 6, the embodiment in which the exposure chamber and the machine chamber are formed in a same chamber is not supported by either the drawings, or the

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specification. If Applicant is referring an art recognized "clean room" as the same chamber then the claim language should be amended to describe this element more accurately. If Applicant is referring to an embodiment in which both the exposure chamber and the machine chamber are formed inside of an actual environmental control chamber, and not just a room with certain sanitation and air flow regulations, this would be distinguishable over the prior art.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 7, 8, 14, 15, 24-27, 29, 32, and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,320,646 to Mouri.

FIG. 2 of Mouri shows an exposure apparatus that includes an exposure apparatus main body, an exposure chamber (booth 214), an air conditioner (cooler 215), a machine chamber (device 210), a supply path of gas for air conditioning (leaving blower 217 through a bottleneck (not labeled) and entering the exposure chamber), a first chemical substance removing filter (filter g), an exhaust path (return path ra) and a second chemical substance removing filter (filter cf). Mouri further shows the machine chamber provided with an outside air inlet (outside-air inlet oa) and a third chemical substance removing filter (filter cf).

Referring to claims 15, 33, and 34, the above stated structure and function of Mouri would inherently lead to the method steps of these claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mouri as applied to claims 1, 2, 7, 8, 14, 15, 24-27, 29, 32, and 33 above, and further in view of U.S. Patent No. 5,508,518 to Kendall.

While Mouri does show a supply port and a return path for connecting the machine chamber to the exposure chamber, Mouri is silent concerning the use of a detachable connection, like a bellows-like member, for forming these connectors. However, Kendall very clearly teaches that the use of a bellows-like member (bellows 56 and 58) was well known in the art for connecting environmentally controlled chambers and providing the benefit of vibration isolation (see abstract and FIG. 1). Therefore, it would have been obvious to provide bellows-like members as the supply port and return path of the apparatus of Mouri, in order to provide vibration isolation between the machine chamber and the exposure chamber.

Neither Mouri, nor Kendall expressly teaches that the bellows forming the supply port and return path should be detachable. But one of ordinary skill in the art would recognize that trying to form the bellows integral to both the machine chamber and the exposure chamber

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would be nearly impossible, and would be prohibitively expensive. Therefore it would have been obvious to form the machine chamber, the exposure chamber, and the bellows separately and then assemble, or attach them.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Document 6-176998 to Kazushi et al. in view of Mouri.

FIG. 1 of Kazushi shows an exposure apparatus that includes an exposure apparatus main body, an exposure chamber (chamber housing reticle library 11 and exposure apparatus main body), an air conditioner (cooler 2A), a machine chamber (machine chamber 2), a supply path of gas (first duct 5A and dead space of exposure chamber, and second duct 5B and dead space above wafer carrier 13), a first chemical removing filter (filter box 3a), and an exhaust path (6). Kazushi is silent concerning the inclusion of a second chemical substance removing filter, but Mouri teaches that a chemical substance removing filter placed in an exhaust path of gas that is going to be reused by an air conditioning unit was well known in the art for purifying the gas prior to cooling and/or heating. In view of the teaching of Mouri, it would have been obvious to include a second chemical substance removing filter in the exhaust path of Kazushi, in order to purify exhausted gas prior to being reused by the apparatus.

Further, the apparatus of Kazushi lacks a filter in the supply path upstream of the division of the supply path. However, Mouri shows that a filter (filter g) disposed upstream from a supply path for supplying gas to multiple chambers (exposure chamber and intake port sa) was well known for purifying gas prior to introducing it into the processing area. Thus, it would have

been obvious to provide a filter in the supply path of Kazushi upstream from the division of the supply path in order to purify the gas prior to introducing it into the processing area.

***Allowable Subject Matter***

Claims 16-23 and 36-47 are allowed.

Claims 11-13, 28, 30, and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed 9/15/03 have been fully considered but they are not persuasive.

Referring to Applicant's argument that independent claim 1 is distinguishable over Mouri in that the air filter of Mouri does not meet the claimed recitation of a "chemical removal filter". Applicant has not enabled a chemical removal filter in such a manner that would patentably distinguish the chemical removal filter claimed over the air filter shown in Mouri. At no point in the specification is any functionality attributed to the chemical removal filter other than the removal of "contaminants" (abstract) or "chemical substances" (paragraph 14). Since an air filter would meet both of these requisites, Examiner asserts that Mouri does anticipate the claim language, when given its broadest interpretation. Further, referring to Applicant's claim that the filters of the present application are meant to filter chemical substances that may enter the system in three locations (page 18), this argument is not supported by the specification as

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originally filed, which only presents two such sources (the air inlet, and the exposure chamber). Therefore, this argument is viewed to be an attempt to enter new matter into the record and is not further addressed.

Regarding Applicant's argument that independent claim 24 is patentable over Mouri due to the inclusion of a "blow port" disposed in a boundary area between another chamber and an exposure chamber, and that Mouri provides no such "blow port", Examiner would point out that "blow port" is not an art recognized term that implies specific structural features. Applicant argues that the disclosure of Mouri does not identify a particular type of blow port, but Examiner avers that the instant application does not identify a particular type of blow port, or even what, specifically a blow port is. In fact, this feature, located as claimed in claim 24, is not even found within the drawings and the drawings have been objected to for this reason. Examiner has interpreted this feature to be any path through which air pass from one chamber into another. Applicant admits that Mouri does show an apparatus including another chamber and a main exposure chamber that meet the limitations of this claim. Since air may flow between these chambers, and the air in each is air conditioned, Examiner holds that this limitation is met. In reference to Applicant's argument concerning side flows vs. down flows, claim 24 makes no mention to the direction of the air-flow in or between the chamber.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).




A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Ben Esplin whose telephone number is (703) 305-4022. The examiner can normally be reached on Mon.-Fri. (8am-4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russell E. Adams can be reached on (703) 308-2847. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

  
DBE

  
RUSSELL E. ADAMS  
Supervisor